

CLAIMS

1. A method for establishing a data communication path between a service terminal (ST) and a service provider (SP) across a telecommunication network (NET),

5 said method comprising the steps of:

- establishing a connection (C) across said telecommunication network between a network termination (NT), to which said service terminal is coupled, and an access server (AS), to which said service provider is coupled,
- forwarding in said access server traffic related to said service terminal to said
10 connection,
- forwarding in said network termination traffic related to said service provider to said connection,

characterized in that said connection is established after said service terminal has requested a service (S) from said service provider, and on condition that an
15 authentication server (AUTH) has granted said service terminal the access to said service,

in that said connection is established according to transport requirements (TR) of said service,

and in that said transport requirements are supplied by said authentication server.

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2. A method according to claim 1, **characterized in that** said transport requirements include any of the following parameters:

- a source address of said connection,
- a end address of said connection,
- 25 - transfer capabilities of said connection required for delivering said service to said service terminal with a pre-determined quality of service.

3. A method according to claim 1, **characterized in that** said method further comprises the step of supplying forwarding criteria (CR2) via a control channel
30 (CC1) to said network termination for said network termination to forward traffic related to said service to said connection,

and in that said forwarding criteria are supplied by said authentication server.

4. A method according to claim 3, **characterized in that** said forwarding criteria include any of the following parameters:

- a physical address of said service terminal,
- an identifier of a virtual local area network,
- 5 - an identifier of a class of service, to which said service belongs.

5. A telecommunication network (NET) comprising:

- a root node (N1), to which an access server (AS) is coupled,
- a leaf node (N2), to which a network termination (NT) is coupled,
- 10 - a network controller (CTRL) adapted to establish a connection (C) across said telecommunication network between said network termination and said access server,

characterized in that said network controller is further adapted to establish said connection after a service terminal (ST), coupled to said network termination, has requested a service (S) from a service provider (SP), coupled to said access server, and on condition that an authentication server (AUTH) has granted said service terminal the access to said service,

in that said network controller is further adapted to establish said connection according to transport requirements (TR) of said service,

20 **and in that** said transport requirements are supplied by said authentication server.

6. A telecommunication network according to claim 5, **characterized in that** said transport requirements include any of the following parameters:

- a source address of said connection,
- 25 - a end address of said connection,
- transfer capabilities of said connection required for delivering said service to said service terminal with a pre-determined quality of service.

7. A telecommunication network according to claim 5, **characterized in that** said leaf node comprises local management means (MGT1) adapted to transmit forwarding criteria (CR2) via a control channel (CC1) to said network termination for said network termination to forward traffic related to said service to said connection, **and in that** said forwarding criteria are supplied by said authentication server.

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8. A telecommunication network according to claim 7, **characterized in that** said forwarding criteria include any of the following parameters:

- a physical address of said service terminal,
- an identifier of a virtual local area network,
- 5 - an identifier of a class of service, to which said service belongs.

9. A telecommunication network according to claim 5, **characterized in that** a first segment (C1) of said connection is provisioned between said network termination and said leaf node,
10 **in that** said network controller is further adapted to establish a second segment (C2) of said connection between said leaf node and said access server,
and in that said leaf node comprises third forwarding means (FW3) adapted to forward traffic conveyed over said first segment and related to said service to said second segment,
15 thereby establishing said connection between said network termination and said access server.

10. A telecommunication network according to claim 5, **characterized in that** said leaf node comprises relay means (REL) adapted to intercept control traffic
20 (CT) from said service terminal, said control traffic being forwarded where appropriate.

11. A network controller (CTRL) adapted to establish a connection across a telecommunication network (NET) between a network termination (NT) and an access server (AS),
25 **characterized in that** said network controller is further adapted to establish said connection after a service terminal (ST), coupled to said network termination, has requested a service (S) from a service provider (SP), coupled to said access server, and on condition that an authentication server (AUTH) has granted said service terminal the access to said service,
30 **in that** said network controller is further adapted to establish said connection according to transport requirements (TR) of said service,
and in that said transport requirements are supplied by said authentication server.

12. A network controller according to claim 11, **characterized in that** said transport requirements include any of the following parameters:

- a source address of said connection,
- a end address of said connection,
- 5 - transfer capabilities of said connection required for delivering said service to said service terminal with a pre-determined quality of service.

13. An authentication server (AUTH) adapted to grant or deny a service terminal (ST) the access to a service (S) of a service provider (SP),

- 10 **characterized in that** said authentication server is further adapted, after said service terminal has been granted said service, to supply transport requirements (TR) of said service for a network controller (CTRL) to establish a connection (C) across a telecommunication network (NT) between a network termination (NT), to which said service terminal is coupled, and an access server (AS), to which said service provider is
- 15 coupled.

14. An authentication server according to claim 13, **characterized in that** said transport requirements (TR) include any of the following parameters:

- a source address of said connection,
- 20 - a end address of said connection,
- transfer capabilities of said connection required for delivering said service to said service terminal with a pre-determined quality of service.

15. An authentication server according to claim 13, **characterized in that**

25 said authentication server is further adapted, after said service terminal has been granted said service, to supply forwarding criteria (CR2) for said network termination to forward traffic related to said service to said connection.

16. An authentication server according to claim 15, **characterized in that**

30 said forwarding criteria include any of the following parameters:

- a physical address of said service terminal,
- an identifier of a virtual local area network,
- an identifier of a class of service, to which said service belongs.

17. A network termination (NT) adapted to couple a service terminal (ST) to a telecommunication network (NET), and comprising:

- local management means (MGT2) adapted to get via a control channel (CC1) characteristics of a connection (C) established between said network termination
5 and an access server (AS), to which a service provider (SP) is coupled,
- forwarding means (FW2) adapted to forward traffic related to said service provider to said connection,

characterized in that said local management means are further adapted, after said service terminal has requested a service (S) from said service provider, to get via said
10 control channel forwarding criteria (CR2) for forwarding traffic related to said service to said connection,

and in that said forwarding means are further adapted to forward traffic conforming with said forwarding criteria to said connection.

15 18. A network termination according to claim 17, **characterized in that** said forwarding criteria include any of the following parameters:

- a physical address of said service terminal,
- an identifier of a virtual local area network,
- an identifier of a class of service, to which said service belongs.